

ORIGINAL
RECEIVED

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554

JUN - 5 1992

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of

Redevelopment of Spectrum to
Encourage Innovation in the
Use of New Telecommunications
Technologies

)
)
) ET Docket No. 92-9
)
)

TO: The Commission

COMMENTS OF THE
SOCIETY OF BROADCAST ENGINEERS, INCORPORATED

The Society of Broadcast Engineers, Incorporated (SBE), the national association of broadcast engineers and technical communications professionals, with more than 6,000 members in the United States, hereby respectfully submits its comments in the above-captioned proceeding relating to the reallocation of spectrum for emerging technologies. Specifically, these comments address protection of the 2 GHz electronic news gathering (ENG) band, extensively used by broadcasters.

I. BACKGROUND

1. The Notice of Proposed Rule Making in the above-captioned docket concludes that, for various reasons, only spectrum between 1 and 3 GHz is viable for an emerging technologies spectrum reserve. This spectrum encompasses the 1.990-2.110 GHz Television Broadcast auxiliary band, more commonly referred to as the 2 GHz ENG band. The SBE wishes to be on record as concurring with the conclusion reached in a recent report issued by the Office of

Engineering Technology (OET), "Creating New Technology Bands for Emerging Telecommunications Technology," FCC/OET TS92-1 (January, 1992), and repeated at Paragraph 18 of the NPRM to this docket, that it is not practicable to relocate the 2 GHz Broadcast Auxiliary users to some other band.

II. 2 GHz ENG BAND PROVIDES UNIQUE ADVANTAGES

2. SBE comments filed on January 9, 1992, in response to General Docket 90-314, "In the Matter of Amendment of the Commission's Rules to Establish New Personal Communications Services," pointed out that the 2 GHz TV Broadcast Auxiliary band is mostly used by mobile, or ENG, stations. Most fixed links in the 2 GHz band have been voluntarily re-located to the 7 or 13 GHz TV Broadcast Auxiliary bands, to free the 2 GHz band for mobile ENG use. Thus, while it may be technically and even economically possible to relocate displaced fixed microwave links to another band, also containing only fixed links, it is not possible to relocate mobile microwave transmitters to another band where sharing with fixed links would be required. Not only would the locations of the mobile stations never be known for sure, the large and highly directive microwave antennas commonly used by fixed links to allow frequency re-use are not practical for mobile stations.

3. Additionally, at 2 GHz losses due to obstructed shots through intervening trees and foliage are often low enough to be overcome, and "building bounce" shots out of obstructed (by temporarily newsworthy) areas are often possible. Even if the

higher TV Auxiliary microwave bands did not suffer from more difficult propagation characteristics, and a portion of those bands could somehow be cleared of fixed links and reserved just for mobile operations, the cost of replacing an estimated 50 to 100 million dollars worth of 2 GHz ENG equipment would be a severe economic burden to TV broadcast stations.

III. FIBER OPTIC LINKS ARE NOT A SUBSTITUTE

4. Because most TV Auxiliary stations using the 2 GHz band are mobile stations, the migration from spectrum-using microwave links to non-spectrum-using fiber optic links is not possible. Thus, there is no likelihood of reduced usage in the 2 GHz ENG band as a result of communication paths that could be transferred to fiber optic cables.

IV. CONCLUSION

For the reasons given above, the SBE concludes that the 1.990-2.110 GHz ENG band must continue to be considered as "off limits" for reallocation for emerging technologies (which, at this time, remain unproven). The SBE endorses the proposal, at Paragraph 19 of the NPRM, to exclude the 1.990-2.110 GHz band from the microwave

spectrum¹ targeted to free up 220 MHz of spectrum for emerging technologies.

Respectfully submitted,

SOCIETY OF BROADCAST
ENGINEERS, INCORPORATED

By Richard Farquhar
Richard Farquhar
President

By Dane E. Ericksen
Dane E. Ericksen, P.E.
Chairman, SBE FCC Liaison
Committee

By Christopher D. Imlay
Christopher D. Imlay
Its Counsel

BOOTH, FRERET & IMLAY
1233 20th Street, N. W.
Suite 204
Washington, D. C. 20036
(202) 296-9100

June 5, 1992

¹ The microwave bands identified for reallocation are the 1.85-1.99 GHz, 2.11-2.15 GHz, and 2.16-2.20 GHz.